

AMENDMENTS TO THE CLAIMS

Please cancel claims 1 through 11, and replace them with the following new claims:

LISTING OF CLAIMS:

12. (new): A laser machining apparatus for machining a workpiece, wherein a laser emitted from an oscillator is dispersed into a first laser beam that is passed through a first polarizing beam splitter and is reflected, via a mirror, by a second polarizing beam splitter, and into a second laser beam that is reflected by the first polarizing beam splitter, scanned bi-axially by a first galvano-scanner, and passed through the second polarizing beam splitter, scanning by a second galvano-scanner being carried out, the laser machining apparatus comprising:

a third polarizing beam splitter, capable of polarizing- angle adjustment, disposed in front of the first polarizing beam splitter.

13. (new): The laser machining apparatus as recited in claim 12 further comprising:

a sensor for measuring energy of the laser beams, wherein the energy of the two laser beams is measured, and angle adjustment is performed by a third polarizing beam splitter, in order to extract the two laser beams with desired energy proportions.

14. (new): The laser machining apparatus as recited in claim 12 wherein:

focal positions of the two laser beams are measured, based on a measuring means for measuring laser-beam focal position, and adjustment is carried out by a deformable mirror, so that the difference between the focal positions of the two laser beams is below a desired reference.

15. (new): The laser machining apparatus as recited in claim 14, wherein:

the deformable mirror, which is curved, is disposed along the light path of one of the two laser beams after the laser light has been dispersed, and the deformable mirror is provided for adjusting focal positions thereof by changing the focal length of the curved deformable mirror.

16. (new): The laser machining apparatus as recited in claim 14, wherein:

a mirror that can change a light path length for adjusting focal position by changing light path length of a light path, along the light path of one of the two laser beams after the laser beams have been dispersed, is provided as the deformable mirror.

17. (new): The laser machining apparatus as recited in claim 16, wherein:

the light path length is changed by making variable the attachment angle or position of reflection mirrors, disposed along the light path of the laser beam, for reflecting the laser beams.

18. (new): A laser machining apparatus for machining a workpiece, wherein a laser emitted from an oscillator is dispersed into a first laser beam that is passed through a first polarizing beam splitter and is reflected, via a mirror, by a second polarizing beam splitter, and a second laser beam that is reflected by the first polarizing beam splitter, scanned bi-axially by a first galvano-scanner, and passed through the second polarizing beam splitter, scanning by a second galvano-scanner being carried out, characterized in that:

focal positions of the two laser beams are measured, based on a measuring means for measuring the focal positions of the laser beams, and adjustment is carried out by a deformable mirror so that the difference between the focal positions of the two laser beams is below a desired reference.

19. (new): The laser machining apparatus as recited in claim 18, wherein:

the deformable mirror, which is curved, is disposed along the light path of one of the two laser beams after the laser beams have been dispersed, and the deformable mirror is provided for adjusting focal positions thereof by changing the focal length of the curved deformable mirror.

20. (new): The laser machining apparatus as recited in claim 18, wherein:

a mirror that can change a light path length for adjusting focal position by changing light path length of a light path, along the light path of one of the two laser beams after the laser beams have been dispersed, is provided as the deformable mirror.

21. (new): The laser machining apparatus as recited in claim 18, wherein:

light path length is changed by making variable the attachment angle or position of reflection mirrors, disposed along the light path of a laser beam, for reflecting the laser beams.

22. (new): The laser machining apparatus as recited in claim 12, wherein:

reflective faces of the first and the second polarizing beam splitter are disposed facing each other, to form light paths in which the light path lengths of each of the dispersed laser beams are each the same.

23. (new): The laser machining apparatus as recited in claim 18, wherein:

reflective faces of the first and the second polarizing beam splitter are disposed facing each other, to form light paths in which the light path lengths of each of the dispersed laser beams are each the same.